

Bucket No.: K-0090C

1F 2663
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Confirmation No.: 8437

Young-Joon SONG

Group Art Unit: 2663

Serial No.: 09/525,446

Examiner: Chi Ho A LEE

Filed: March 14, 2000

Customer No.: 34610

For: PILOT SIGNALS FOR SYNCHRONIZATION AND/OR CHANNEL
ESTIMATION

REPLY TO NOTICE TO FILE CORRECTED APPLICATION PAPERS
FILING DATE GRANTED

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Sir:

In reply to the Notice to File Corrected Application Papers dated **October 24, 2005**, submitted herewith are the following documents for filing in the above-referenced application:

1. Substitute Specification page 75.
2. Copy of Notice to File Corrected Application Papers.
3. Other:

It is requested that the substitute specification page 75 be included in the published patent.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Date: November 21, 2005

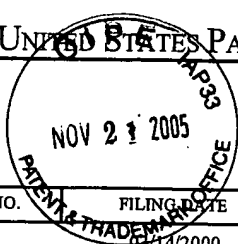
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/525,446	09/14/2000	Young-Joon Song	K-090C	8437

34610 7590 10/24/2005

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EXAMINER

LEE, CHI HO A

ART UNIT PAPER NUMBER

2663

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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NOTICE TO FILE CORRECTED APPLICATION PAPERS

Notice of Allowance Mailed

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- Specification---page 75, second line from the bottom, serial number missing.

APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.

A copy of this notice **MUST** be returned with the reply. Please address response to Commissioner for Patents P.O. Box 1450
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transmits frame synchronization word, e.g., pilot patterns of the preferred embodiment, and the period for synchronization is one frame. In chip synchronization, a scrambling code comprises chips, and chip synchronization indicates synchronization of the scrambling code, where chip is a smaller unit of signal than data symbol. Generally, multiple chips comprise one symbol. Since the minimum unit of data is a symbol, chip by itself does not contain any information, but scrambling code used to scramble the data symbols.

There are two types of scrambling codes, i.e., a short scrambling code with a duration of one symbol and a long scrambling code with a duration of one frame. When a long scrambling code is used, frame synchronization is equivalent to chip synchronization, i.e, when there is frame synchronization, there is chip synchronization or vice versa. As for short scrambling code, frame synchronization is not equivalent to chip synchronization since there can be chip synchronization without frame synchronization. However, when frame synchronization is accomplished, there is also chip synchronization for short scrambling code. In the preferred embodiment, either short or long scrambling code can be used in the uplink, and long scrambling code is used for the downlink. The chip or frame synchronization can be accomplished using a correlator, described above, or matched filter, described in co-pending application serial nos. _____, in a user terminal or a base station.

Figure 29 illustrates the procedures for confirming and establishing frame